



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Kazuo USHIDA et al.

Group Art Unit: 2851

Application No.: 09/320,472

Examiner: A. Mathews

Filed: May 25, 1999

Docket No.: 110197-98

For: PROJECTION EXPOSURE APPARATUS

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AMENDMENT IN REISSUE APPLICATION

Director of the U.S. Patent and Trademark Office
Washington, D.C. 20231

Sir:

In reply to the Office Action dated April 4, 2001, the shortened statutory period for reply being extended by the attached Petition for Extension of Time, please amend the above-identified application as follows:

IN THE CLAIMS:

Please replace claims 26-29, 91, 93 and 95-97 with the following amended claims:

26. (Twice Amended) A projection exposure apparatus comprising:

an illumination optical system in which an optical system is disposed on an optical path to form an annular secondary light source with light emitted by a first light source, said optical system changing an annular ratio of an inner diameter to an outer diameter with respect to the annular secondary light source; and

a projection optical system disposed in an optical path between the mask and a substrate so as to project an image of the mask onto the substrate;

said illumination optical system satisfying the following condition:

$1/3 \leq d_1/d_2 \leq 2/3$